InterRidge **International Workshop**

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12-15 October, 2015 **Circum-Antarctic Ridges**

RIDGE

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Local organizing committee:

30°W

Sung-Hyun Park Seung-Sep Kim Jongkuk Hong Doshik Hahm **Cheong-Yeon Hwang** Sang-Mook Lee Yong Jin Won **Jin Wook Kim** Jung Hun Seo Jung-Hyun Lee Sang Joon Park Venue:

Conveners /Scientific committee:

30.E

Sung-Hyun Park Seung-Sep Kim Anne Briais Jian Lin **Charles Langmuir** Nobukazu Seama Chunhui Tao

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60° FF

120°E

Korea Polar Research Institute (KOPRI) 26 Songdomirae-ro, Yeonsu-gu, Incheon 406-840, Korea 150°E



150°W



180°









2nd InterRidge International Workshop Circum-Antarctic Ridge

We are pleased to announce the 2nd InterRidge International Workshop on Circum-Antarctic Ridge will be held at the Korea Polar Research Institute (KOPRI) in Songdo, Incheon, Republic of Korea during October 12-15, 2015.

1. Objectives of the meeting:

Circum-Antarctic Ridges (CARs), defined as the mid-ocean ridge system encircling the Antarctic Continent, constitute one third of the global mid-ocean ridge system. They include the Pacific-Antarctic Ridge, Chile Ridge, Australian-Antarctic Ridge, Southeast Indian Ridge, Southwest Indian Ridge, and American-Antarctic Ridge. CARs are unique in that they exhibit shallow water depths, ultra-slow or intermediate spreading rates, and complex series of transform offsets compared to low-latitude ridges. Furthermore, since these ridges cover all major oceans with no continental barriers, we may be able to trace mantle flow between different oceanic domains, as well as the migration routes of hydrothermal vent animals between major oceans.

Despite their importance in the global mid-ocean system, CARs have been poorly investigated for their rough sea conditions in high latitudes and the remoteness from major ports of large Research Vessels. However, during the last decade, international efforts by China, France, Germany, Japan, Korea, UK, and USA have been made to survey many sections of CARs, and as a result, remarkable scientific results are being produced. For example, from 2011 to 2013, Korean led three comprehensive expeditions using Icebreaker R/V Araon to Australian-Antarctic Ridge (AAR, the southeastern most section of the Southeast Indian Ridge) that remained totally unexplored and found new hydrothermal vents and species, unique mantle heterogeneity, and relationship between abyssal hills and glacial cycles. Also, early 2015, France successfully carried out the STORM (South Tasmania Ocean Ridge and Mantle) cruise using R/V L'Atalante on the ridge segment and off-axis seamount in the east of Australian-Antarctic Discordance (AAD).

Therefore, it is the right time to review the state of the art and current issues on CARs since 1st CAR workshop at Toulouse, France in 2011. This will be the basis for organizing the next level of international efforts to survey Circum-Antarctic Ridges, to discover new tectonic contexts, mantle dynamics, new hydrothermal vents, and new species, and to bring forth new scientific insights. These ridges will likely become one of the most important places in the InterRidge (IR) research objectives for the coming decade. Thus, it is crucial for the IR community to gather and discuss these issues at the workshop.

2. Agenda

(1) Geological boundaries and fluxes between the Pacific, Atlantic and Indian mantle domains

(2) Along-axis variability in ridge tectonics, magma supply, and geochemistry

- (3) Ocean ridges and Climate
- (4) Hydrothermalism in diverse ridge settings
- (5) Diversity and migration of deep-sea ecological communities.

We welcome the latest results and insights from field programs and shore-based investigations, as well as comparative studies with global ocean ridges. We are also encouraging active collaboration efforts between various IR countries to address unresolved scientific issues.

3. Workshops

The meeting will have a number of presentations, and a large part of discussion, not only on specific scientific issues, but also on specific techniques required to survey in the southern ocean, especially in high latitudes, and on the essential coordination of cruise plans.

October 12: Registration, Pre-Workshop Excursion (TBD) and Icebreaker

October 13: Diversity of ridge tectonics and dynamics around Antarctica (invited and volunteers).

October 14: Important scientific issues on Circum-Antarctic ridges and Hotspots (Invited and Volunteer)

October 15: Discussions about future collaborations

- Main scientific issues
- Technical developments
- Future cruises and collaborations
- Plans, needs, international projects, funding, ship time etc

4. Organizing committees

Conveners/Scientific Committee	Local Committee
Sung-Hyun Park (Korea Polar Research Institute) Seung-Sep Kim (Chungnam National University, Korea) Anne Briais (University of Toulouse, France) Jian Lin (Woods Hole Oceanographic Institution, USA) Charles Langmuir (Harvard University, USA) Nobukazu Seama (Kobe University, Japan) Chunhui Tao	Local Committee Sung-Hyun Park (KOPRI) Seung-Sep Kim (CNU) Jongkuk Hong (KOPRI) Doshik Hahm (KOPRI) Cheong-Yeon Hwang (KOPRI) Sang-Mook Lee (Seoul National University) Yong Jin Won (Ewha Womans University) Jin Wook Kim (Yonsei University) Jung Hun Seo (Inha University)
(Second Institute of Oceanography, China)	Jung-Hyun Lee (KIOST) Sang Joon Park (KIOST)

5. Venue

Korea Polar Research Institute (KOPRI) 26 Songdomirae-ro, Yeonsu-gu, Incheon 406-840, Korea

KOPRI is located at Songdo, Incheon, Korea. Built on reclaimed land, Songdo offers a number of attractions. A trip to Songdo can start at Central Park, a natural oasis in the city. Because of its proximity to the sea, the manmade waterway is filled with seawater, and water taxis travel through the park. Close by are a lawn and a promenade along a field of reeds. Nearby, there are many futuristic-looking buildings, creating a harmonious combination of technology and the natural environment. In addition to numerous hotels near KOPRI, Songdo is just 30 mins away from the Incheon International Airport. Hotels will be available for group discount (will be recommend soon).

5. Important dates

- August 31, 2015 : Abstract submission for oral or poster presentation
- September 11, 2015 : Registration (Free registration)
- Web site available soon

We wish to encourage the participation of early careers at the CAR workshop. Some financial support will be available for students and early career scientists. Awards will be presented to the outstanding contributions by young scientists.